

ABSTRACT

The invention includes a method for converting from an interlace scan image to a progressive scan image. Interpolated rows of pixels, lying between successive rows of the interlace scan image, are generated based upon the received interlace scan rows. The method determines a degree of movement, if any, in the region of a target pixel, and whether a target pixel lies on an edge between visually distinct regions. Multiple potential interpolated values for the target pixel are generated by several interpolation methods, including edge interpolation, inter-field interpolation, non-linear interpolation, and intra-field interpolation. The system uses the degree of movement and edge detection to select or combine one or more of the potential values for the target pixel. At least one correction filter is applied to the result, to correct errors caused by electrical noise in the interlace scan image.